Claims:

1. Antenna arrangement having the following features:
   - at least two antenna element systems (3.1, 3.2) are provided, which each have at least one antenna element,
   - the at least two antenna element systems (3.1, 3.2) are arranged with an offset with respect to one another in the horizontal and/or vertical direction, preferably in front of a reflector (2),
   - the at least two antenna element sytems (3.1, 3.2) transmit and receive in at least one polarization plane,

   characterized by the following further features
   - the at least two antenna element systems (3.1, 3.2) are arranged and/or fed such that the main lobe (7.1) of the first antenna element device (3.1) and the main lobe (7.2) of the second antenna element device (3.2) include an angle (α) between one another,
   - a network (13) is provided via which the first antenna element system (3.1) and the second antenna element system (3.2) can be supplied with a signal whose intensities can be set differently relative to one another, so that it is possible in this way to set a different angular transmission direction (α) for the antenna arrangement.

2. Antenna arrangement according to Claim 1, **characterized** in that the two antenna element systems (3.1, 3.2) are arranged vertically one above the other.

3. Antenna arrangement according to Claim 1, **characterized** in that the at least two antenna element systems (3.1, 3.2) are arranged with a horizontal offset with respect to one another.

4. Antenna arrangement according to one of Claims 1 to 3, **charact rized** in that at least two columns (23.1, 23.2) are provided, with at least two antenna element devices (3.1, 3.2) being arranged one above the other in each column (23.1, 23.2), by which means the alignment direction of the main lobe, which is produced by superimposition, of the antenna arrangement can be adjusted in the elevation and azimuth directions.

5. Antenna arrangement according to one of Claims 1 to 4, **characterized** in that the network has a hybrid circuit (15, 115a, 115b) and a phase shifter arrangement (17, 117a, 117b), such that the phase shifter arrangement (17, 117a, 117b) allows a signal preferably with the same intensity but at a different phase angle to be supplied to the inputs (15a, 15b) of the hybrid circuit (15, 115a, 115b) such that a signal at the same phase angle but with the different intensity is produced at the output (15'a, 15'b) of each of the hybrid circuits (15, 115a, 115b).

6. Antenna arrangement according to one of Claims 1 to 5, **characterized** in that the phase shifter arrangement (17, 117a, 117b) is formed from a difference phase shifter.

7. Antenna arrangement according to one of Claims 1 to 5, **characterized** in that the phase shifter arrangement (17, 117a, 117b) is formed from an arrangement with line paths of different length.

8. Antenna arrangement according to one of Claims 1 to 7, **characterized** in that the antenna arrangement has at least two antenna element systems, with each antenna element system having at least two antenna elements, with the antenna elements (3.1) in the first antenna element system in each case being arranged offset to one another with respect to the antenna elements (3.2) in the second antenna element system, preferably

alternately with respect to one another along a fitting direction.

9. Antenna arrangement according to one of Claims 1 to 8, **characterized** in that the at least two antenna element systems (3.1, 3.2) each have at least two, and preferably more, antennas or antenna elements (3.1, 3.2) which are arranged interleaved in one another, preferably alternately, in the fitting direction.

10. Antenna arrangement according to Claim 9, **characterized** in that the distance between the individual antennas or antenna elements (3.1, 3.2) which are arranged such that they are interleaved is in the region of half the wavelength of the operating frequency.

11. Antenna arrangement according to one of Claims 1 to 10, **characterized** in that the at least two antenna element systems (3.1, 3.2) have two or more antennas and antenna elements (3.1, 3.2) which are arranged interleaved with one another and preferably alternately as antenna elements which are arranged in a plane, in two fitting directions that are at an angle to one another, preferably in two fitting directions that are at right angles to one another, and in that a network (13) is provided, via which the main lobe can be aligned in space by means of a combination of preferably vertical and horizontal control.